

**EXTRA PRACTICE 26**  
**Solving Rational Equations**  
**Use after Section 6.6**

Name \_\_\_\_\_

Example: Solve.  $\frac{5}{x+2} = \frac{3}{x}$

The LCM is  $x(x+2)$

$$x(x+2)\left(\frac{5}{x+2}\right) = x(x+2)\left(\frac{3}{x}\right)$$

$$5x = 3(x+2)$$

$$5x = 3x + 6$$

$$2x = 6$$

$$x = 3$$

The solution is 3.

Check:  $\frac{5}{x+2} = \frac{3}{x}$

$\begin{array}{r} 5 \\ 3+2 \\ \hline 5 \\ \overline{)5} \\ 1 \end{array}$	$\begin{array}{r} 3 \\ \overline{)3} \\ 1 \end{array}$
---	--

Solve.

1.  $\frac{4}{x-1} = \frac{5}{x}$  \_\_\_\_\_

2.  $\frac{x-3}{x+2} = \frac{4}{5}$  \_\_\_\_\_

3.  $\frac{5}{x} = \frac{4}{x} + \frac{1}{2}$  \_\_\_\_\_

4.  $\frac{1}{3} - \frac{3}{4} = \frac{x}{12}$  \_\_\_\_\_

5.  $\frac{4}{3x} + \frac{2}{x} = \frac{2}{3}$  \_\_\_\_\_

6.  $\frac{8}{x-5} = \frac{2}{x+5}$  \_\_\_\_\_

7.  $\frac{x-7}{x+3} = \frac{2x}{x+3}$  \_\_\_\_\_

8.  $\frac{y-1}{4} - \frac{y+1}{10} = 1$  \_\_\_\_\_

**EXTRA PRACTICE 26 (continued)**  
**Solving Rational Equations**  
**Use after Section 6.6**

---

9.  $\frac{a+3}{a} = 5$  \_\_\_\_\_

10.  $b - \frac{3}{b} = 2$  \_\_\_\_\_

11.  $\frac{1}{x} - \frac{4}{x} + \frac{5}{x} = \frac{1}{4}$  \_\_\_\_\_

12.  $\frac{x-2}{x+2} = \frac{x+10}{x}$  \_\_\_\_\_

13.  $x + \frac{5}{x} = 6$  \_\_\_\_\_

14.  $\frac{2x}{x-6} - \frac{1}{x+6} = \frac{27}{x^2-36}$  \_\_\_\_\_

15.  $\frac{x-2}{x} = 4 - \frac{x+4}{x-3}$  \_\_\_\_\_

16.  $\frac{2x+1}{5x-3} = \frac{5x+1}{6x-2}$  \_\_\_\_\_

17.  $\frac{2x-1}{5} - \frac{x+2}{15} = 1$  \_\_\_\_\_

18.  $\frac{x+3}{x-1} = \frac{x+2}{x-3}$  \_\_\_\_\_